UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

Via Email: Kispuds@aol.com

In Reply Refer to:
Kern Ice and Cold Storage, LLC.
120 30th Street, Bakersfield,
California 93301

Mike Mazzei
Chief Operating Officer
Kern Ice and Cold Storage, LLC.
120 30th Street
Bakersfield, CA 93301

RE: Notification of Potential Violation and Opportunity to Confer
Potential Enforcement Action for Apparent Violations of Section 112(r)(1) of the Clean Air Act

Dear Chief Operating Officer Mazzei:

On April 24, 2018, representatives from the U.S. Environmental Protection Agency ("EPA") Region 9 conducted an inspection of the Kern Ice and Cold Storage, LLC. (the "Company") facility located at 120 30th Street in Bakersfield, California (the "Facility") to determine the Company's compliance with requirements under the Emergency Planning and Community Right-to-Know Act ("EPCRA") Sections 304-312, the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") Section 103, and the Risk Management Program of Section 112(r)(1) of the Clean Air Act ("CAA").

An Administrative Order on Consent was signed on March 1, 2019, which required the Company to complete several tasks. These include, among other obligations: conduct a mechanical integrity inspection; modify the engine room doors; seal holes and gaps in the walls; set the ammonia alarm at 25 parts per million ("ppm"); complete ventilation modifications; obtain ventilation design information; implement recommendations to the relief system; develop a preventative maintenance system; label piping and equipment; install National Fire Protection Association ("NFPA") 704 signs; and revise the emergency action plan. EPA understands some of these tasks are not yet complete.

Information currently available to the EPA suggests that the Company may be have committed violations of Section 112(r)(1) of the CAA, 42 U.S.C. § 7412(r)(1). By this letter, the EPA is extending to you an opportunity to advise the Agency, in person, via a conference call, or in writing, of any further information the EPA should consider with respect to the potential

violations. Based upon information revealed during the inspection and subsequently gathered information, EPA is prepared to bring a civil administrative action against the Company to ensure compliance and assess penalties, pursuant to Section 113(d) of the CAA, 42 U.S.C. § 7413(d).

After reviewing the Company's responses, and supporting documentation, EPA is considering the following claims against the Company under the General Duty Clause of CAA Section 112(r)(1) ("GDC"), which provides:

> *The owners and operators of stationary sources producing, processing, handling or storing [any substance listed pursuant to Section 112(r)(3) or any other extremely hazardous substance] have a general duty, in the same manner and same extent as Section 654, title 29 of the United States Code, to identify hazards which may result from such releases using appropriate hazard assessment techniques, to design and maintain a safe facility taking such steps as are necessary to prevent releases, and to minimize the consequences of accidental releases which do occur.*

1. **Potential Finding – CAA §112(r)(1): EPA, Guidance for Implementation of the General Duty Clause Clean Air Act Section 112(r)(1) ("GDC Obligations")[1], Section 2.3.1, Identify Hazards which may Result from Accidental Releases (Notice of Inspection Findings (NOIF 3))**

   The owners and operators are responsible for determining the intrinsic hazards of the chemicals used in the processes, the risks of accidental releases from the processes through possible release scenarios, and the potential effects of these releases on the public and the environment. The hazards of the substance will include not only the flammability and toxicity of the EHS but also the conditions of the specific process. These include temperature and pressure of processing along with human factors and process siting. In order to have a comprehensive hazard assessment, the scenario identification methods used by industry typically fall into one of the following categories: experience, analytical and creative. In the chemical industry, the most common of the formal hazard analysis method is the Hazard and Operability (HAZOP) study. The "What-if" method is quick and easy. This question is asked by the team members for each piece of equipment and each process step. This method may allow the discovery of hazards that would not be identified in any of the more formal methodologies.

   The purpose of performing a Process Hazard Analysis ("PHA") or Hazard Review ("HR") is to identify and analyze the significance of potential hazards associated with the process and to provide information to assist owners and operators in making decisions for improving safety and reducing the chances of a catastrophic ammonia release.

   a. The Company had not conducted a sufficient PHA or HR using appropriate hazard techniques consistent with industry practice and the standard of care for ammonia refrigeration systems (e.g., a "What-if" analysis, or a Hazard and Operability study)

[1] This guidance is available at https://www.epa.gov/sites/production/files/documents/gendutyclause-rpt.pdf.

to identify safety deficiencies that stem from a failure to identify hazards in the design and operation of its refrigeration system. For example, the Company had not considered evaluating pipe hammering and installing anti-hammering two-way, slow closing on/off solenoid valves to permit flow control and prevent the effect of propagating shock waves in the piping systems.

- Example standards include the Center for Chemical Process Safety ("CCPS") Hazard Evaluation Procedures, third edition, which states, "[H]azard evaluations are used to pinpoint weaknesses in the design and operation of facilities that could lead to hazardous material releases, fires, or explosions. These studies provide organizations with information to help them improve the safety and manage the risk of their operations…. Using hazard evaluation techniques is one way to increase a company's understanding of the risk associated with a planned or existing process or activity so that appropriate risk management decisions can be made."

b. The Company had not implemented a compliance audit procedure. The compliance audit checklists were one page for each year from 2013 through 2018, and it was not clear from the handwritten notes if any of the issues were resolved or resolved properly; and some issues indicated "ongoing" in the comment column. As an example, for the 2013 audit, for changes in the system, "N/A" was circled, but the comments indicate two new screw compressors added. In addition, EPA was able to identify approximately 28 "Areas of Concern," most of which have been in existence for some years, indicating that the compliance audit process is not sufficient; and the results of any of the audits should have indicated that the process is a California Accidental Release Prevention ("CalARP") Program 2.

- Example recognized and generally accepted good engineering practices ("RAGAGEP") or industry standards of care in California include 19 C.C.R. § 2755.6(a), which states, "The owner or operator shall certify that they have evaluated compliance with the provisions of this article at least every three years to verify that the procedures and practices developed under this chapter are adequate and are being followed."

c. The inspection team found no information indicating that a seismic review had been completed.

- Example RAGAGEP or industry standards of care in California include 19 C.C.R. § 2755.2(d), which states, "The hazard review shall include the consideration of applicable external events, including seismic events"; and Guidance For CalARP Program Seismic Assessments Prepared for the Administering Agency Subcommittee Region I Local Emergency Planning Committee Prepared by the CalARP Program Seismic Guidance Committee December 2013.

2. **Potential Finding – CAA §112(r)(1) GDC Obligations, Design and Maintain a Safe Facility, Section, 2.3.2(a), GDC Recommendations and Related Codes (NOIF 4)**

The owners and operators should design the process and the hardware in order to minimize the risks of a release; that is, identify, research and apply design safety codes applicable to the substance and the process. Owners and operators must update equipment to current codes and standards, as appropriate (e.g. state regulation, past accident history, generally accepted industry practices).

a. There was inadequate documentation available about the technology and equipment in the process, including codes and standards applied. For example, the Company was missing U-1 Forms and did not have Piping and Instrumentation Diagrams ("P&ID"), making it difficult to understand which design safety codes were applied to the process and the functioning of the system.

- Example RAGAGEP or industry standards of care include CCPS Guidelines for Process Safety Documentation, which states, "A comprehensive compilation of documented information on the process and related safety information enables employers and the employees involved in operating the process to identify, understand and avoid potential hazards. Documentation… includes…information about the equipment and protective systems in the process…."; and the International Institute of Ammonia Refrigeration ("IIAR") Ammonia Refrigeration Management Section 3.1, which provides further details of process documentation consistent with safe operation.

b. The HPR did not include a NFPA Diamond indicating the hazard of anhydrous ammonia.

- Example RAGAGEP or industry standards of care include NFPA 1-2012, Section 53.2.4.1 and ANSI/IIAR 2-2014, Section 6.15.1, which state, "Buildings and facilities with refrigeration systems shall be provided with placards in accordance with NFPA 704 and the Mechanical Code."

c. There was no permanent sign in the Engine Room providing the installation contractor's name, designation of refrigerant, and pounds of refrigerant in the system.

- Example RAGAGEP or industry standards of care include 2016 California Mechanical Code ("CMC") Section 1115.3, which states, "In a refrigeration machinery room and for a direct refrigeration system of more than 10 horsepower (7.5kW), there shall be a permanent sign at an approved location giving the following information: name of contractor installing the equipment; name and number designation of refrigerant in the system; and pounds of refrigerant in the system."

d. The Company did not have pressure relief valve sizing or diffusion tank design calculations to demonstrate that the valves installed meet the capacity requirements

within ammonia refrigeration design standards and prevent a catastrophic buildup of ammonia.

- Example RAGAGEP or industry standards of care include American National Standards Institute/American Society of Heating, Refrigerating and Air-Conditioning Engineers ("ANSI/ASHRAE") 15-2016, Sections 9.7.5, 9.7.6, and 9.7.7, which detail minimum discharge capacities via formulas and tables; and ANSI/IIAR 2-2014 Section 15.3.7, which provides details and formulas for relief valve capacity determination.

e. The Engine Room doors were not adequately labeled to warn of the hazards of entering a room with ammonia-containing machinery and restrict unauthorized people from entry.

- Example RAGAGEP or industry standards of care include 2016 CMC Section 1106.2 and ANSI/IIAR 2-2014 Sections 6.3.4 and 6.15, which states, "Access to a machinery room shall be restricted to authorized personnel. Signage on machinery room doors shall comply with Section 6.15. Signage requires that refrigerating systems shall be provided with approved informative signs, emergency signs, charts and labels in accordance with NFPA 704. Hazard signs shall be in accordance with 2016 CMC. Buildings and facilities with refrigeration systems shall be provided with placards in accordance with NFPA 704 and the Mechanical Code…. Alarm signage shall be provided in accordance with Section 17.6…. Each machinery room entrance door shall be marked with a permanent sign to indicate that only authorized personnel are permitted to enter the room"; and ANSI/ASHRAE 15-2016 Sections 8.11.8 and 11.2.4, which states: "Each entrance to a refrigerating machinery room shall be provided with a legible permanent sign, securely attached and easily accessible, reading 'Machinery Room—Authorized Personnel Only.' The sign shall further communicate that entry is forbidden except by those personnel trained in the emergency procedures required by Section 11.7 when the refrigerant alarm, required by Section 8.11.2.1, has been activated." Section 11.7 discusses posted emergency shutdown procedures.

f. The Company did not have legible, permanent signs securely attached to the ammonia refrigeration equipment displaying the critical information for those maintaining the system.

- Example RAGAGEP or industry standards of care include IIAR Bulletin 109, Section 4.10.4, IIAR Bulletin 109, general safety checklist item (i), NFPA 1-2012, Section 53.2.4.1, and ANSI/ASHRAE 15-2016, Section 11.2.1, which state, "Each refrigerating system erected on the premises shall be provided with a legible permanent sign, securely attached and easily accessible, indicating a) Name and address of the installer, b) The refrigerant number and the amount of refrigerant in the system, c) The lubricant identity and amount, and d) The field test pressure(s) applied."

g. The doors to the Engine Room were not tight-fitting and gasketed, creating the risk of ammonia vapors to spread outside the room. In addition, the doors opened into the room and were not self-closing, which would make it difficult for employees to escape the room when the door opens into the room rather than out; and access to a restroom and office were located at the rear of the Machinery Room and both were equipped with household-type doors.

- Example RAGAGEP or industry standards of care include ANSI/IIAR 2-2014 Section 6.10.2 which states, "Machinery room doors shall be self-closing and tight fitting. Doors that are part of the means of egress shall be equipped with panic hardware and shall be side hinged to swing in the direction of egress for occupants leaving the machinery room. Where the machinery room is not provided with fire sprinklers, doors communicating with the building interior shall be 1-hour fire rated. Doors to the outdoors shall be fire rated where required by the Building Code based on the fire rating required for exterior wall openings"; IIAR Bulletin No. 112 Section 4.2.1(b), which states, "A minimum of two (2) exits must be provided from the machinery room, and all exits shall be in compliance with all federal, state and local codes and regulations. Exit doors shall swing outward, be equipped with panic-type hardware, and shall not be locked while machinery room is occupied. Doors shall be tight-fitting, and self-closing"; ANSI/ASHRAE 15-2016 Section 8.11.2, which states, "Each refrigeration machinery room door shall have a tight-fitting door or doors opening outward, self-closing if they open to the building and adequate in number to ensure freedom for persons to escape in an emergency. With the exception of access doors and panels in air ducts and air handling units … there shall be no openings that will permit passage of escaping refrigerant to other parts of the building"; and Section 8.12.b, which states, "Doors communicating with the building shall be approved, self-closing, tight-fitting doors."

h. The Engine Room walls contained holes and gaps for piping and conduit that were not sealed from other spaces in the building which could allow ammonia inside the Engine Room to spread to other parts of the Facility; and access to a restroom and office were located at the rear of the Machinery Room and both were equipped with household-type doors.

- Example RAGAGEP or industry standards of care include: ANSI/ASHRAE 15-2016, Section 8.11.2, which states, "With the exception of access doors and panels in air ducts and air handling units…there shall be no openings that will permit passage of escaping refrigerant to other parts of the building."; Section 8.11.7, which states, "There shall be no air flow to or from an occupied space through a machinery room unless the air is ducted and sealed in a manner to prevent any refrigerant leakage from entering the airstream"; ANSI/IIAR 2-2014 Section 6.6.2, which states, "Pipes penetrating the machinery room separation shall be sealed to the walls, ceiling, or floor

through which they pass in accordance with Section 6.2.1. Where Section 6.2.1 requires that the separation have a fire rating, pipe penetrations shall be fire stopped in accordance with the Building Code"; and ANSI/ASHRAE 15-2016 Section 8.12.e, which states, "All pipes piercing the interior walls, ceiling, or floor of machinery rooms shall be tightly sealed to the walls, ceiling, or floors through which they pass."

i. EPA asked for, but was not provided, electrical design documents indicating whether the machinery room is designated as an Ordinary Location or as a Hazardous (Classified) Location.

- Example RAGAGEP or industry standards of care include ANSI/IIAR 2-2014 Section 6.8.3, which states, "Electrical design documents shall indicate whether the machinery room is designated as an Ordinary Location or as a Hazardous (Classified) Location. Where the machinery room is designated as a Hazardous (Classified) Location, the Class, Division, and Group of the electrical classification, as required by the Electrical Code, shall be indicated in the documentation."

j. The Engine Room had an ammonia detector set at 250 ppm. Machinery room ammonia detectors should be set at 25 ppm.

- Example RAGAGEP or industry standards of care include 2016 CFC Section 606.8, which states, "Machinery rooms shall contain a refrigerant detector with an audible and visual alarm. The detector, or a sampling tube that draws air to the detector, shall be located in an area where refrigerant from a leak will concentrate. The alarm shall be actuated at a value not greater than the corresponding TLV-TWA values shown in the California Mechanical Code for the refrigerant classification. Detectors and alarms shall be placed in approved locations. The detector shall transmit a signal to an approved location." The Ammonia TVL-TWA in the California Mechanical Code is 25 ppm; and IIAR-2, Section 6.13.1.2, states, "Machinery rooms shall be provided with ammonia detection and alarm in accordance with Sections 17.2-17.6…. The detector shall activate an alarm that reports to a monitored location so that corrective action can be taken at an indicated concentration of 25 ppm or higher."

3. <u>Potential Finding– CAA §112(r)(1) GDC Obligations, Design and Maintain a Safe Facility, Section, 2.3.2(a), GDC Recommendations Regarding Equipment (NOIF 5)</u>

The owners and operators should implement a quality control program to ensure that components and materials meet design specifications and to construct the process equipment as designed. The owners and operators should apply the same standard of care when modifying or repairing the facility. Safety equipment and inherently safer technology can be used to lessen the hazards posed by an extremely hazardous substance. Making vessels containing flammable materials inert, using alternate processes that

require lower temperatures or pressures, installing relief systems, determining process siting, installing anti-static devices and other equipment are common mechanisms to lessen the hazards. Owners and operators should consult trade associations, industry consultants (e.g., Center for Chemical Process Safety, others) and safety engineers to determine standards and safety equipment employed at facilities.

a. The piping and valves were not labeled to indicate contents, direction of flow, physical state (i.e., liquid or vapor), pressure level (i.e., high or low), and there were no distinctive component markers for other system equipment (e.g., receivers, accumulator, etc.).

    - Example RAGAGEP or industry standards of care include: IIAR Bulletin No. 109 Section 4.7.6, which states, "All ammonia piping should have appropriate pipe markers attached to indicate the use of the pipe and arrows to indicate the direction of flow, such as in IIAR Bulletin No. 114"; 2016 CMC Section 1110.5, IIAR Bulletin 114, Sections 4.1.1 through 4.1.8, and ANSI/IIAR 2-2014 Section 5.14.5, which state, "All piping mains, headers and branches shall be identified with the following information: 'AMMONIA', Physical state of the ammonia, Relative pressure level of ammonia, being low or high as applicable, Pipe service, which shall be permitted to be abbreviated, and Direction of flow. The marking system shall either be one established by a recognized model code or standard or one described and documented by the facility owner;" and ASME A13.1-2015, Section 3.1, which states, "Positive identification of the contents of a piping system shall be by lettered legend, giving the name of the contents in full or abbreviated form. Arrows shall be used to indicate direction of flow. Where flow can be in both directions, arrows in both directions shall be displayed. Contents shall be identified by a legend with sufficient additional details such as temperature, pressure, etc., as are necessary to identify the hazard."

b. There was excessive ice accumulation on equipment, pipes, valves, and fittings.

    - Example RAGAGEP or industry standards of care include ANSI/IIAR 2-2014 Section 5.10.1, which states, "Piping and equipment surfaces not intended for heat exchange shall be insulated, treated, or otherwise protected to mitigate condensation and excessive frost buildup where the surface temperature is below the dew point of the surrounding air during normal operation and in an area where condensation and frost could develop and become a hazard to occupants or cause damage to the structure, electrical equipment, or refrigeration system."

c. There were no controlled fresh air intakes to the Engine Room providing adequate air exchange of the room for ventilation. Adequate ventilation minimizes vapor build up and reduces the risk of significant inhalation, dermal hazards, and fire or explosion. The exhaust fan was located in the ceiling of the machinery room, and another fan at a window was manually wired with an electrical cord. No ventilation design or

capacity information was available.

- Example RAGAGEP or industry standards of care include ANSI/ASHRAE 15-2013, Section 8.11.4, which states, "Provision shall be made for inlet air to replace that being exhausted. Openings for inlet air shall be positioned to avoid recirculation"; ANSI/IIAR 2-2008 (2012 edition), Section 13.3.8.1, which states, "Normal mechanical ventilation design capacity shall be the greater of (a) 20 Air Changes per hour (20 ACH) based on the total gross volume of the machinery room. (b) The volume required to limit the room temperature to 104°F (40°C) taking into account the ambient heating effect of all machinery in the room and with the ventilation air entering the room at a 1% ASHRAE design."; Section 13.3.9.1, which states, "Emergency mechanical ventilation systems shall be capable of providing at least one air change every two minutes, which is 30 air changes per hour (30 ACH) based on the gross machinery room volume."; and Section 13.3.9.2, which states, "Emergency mechanical ventilation shall be actuated by (a) A refrigerant detector at a level not exceeding 1,000 ppm; (b) Manual controls."

d. There were no working remote emergency shutdown controls or ventilation switches located outside the Engine Room door to quickly shut down or properly ventilate the machinery room without entering it, when the room could have dangerous levels of vapors.

- Example RAGAGEP or industry standards of care include: ANSI/ASHRAE 15-2016, *Safety Standard for Refrigeration Systems*, Section 8.12.h and 2016 CMC, Sections 1108.3 and 1107.6, which states, "Remote control of the mechanical equipment in the refrigerating machinery room shall be provided immediately outside the machinery room door solely for the purpose of shutting down the equipment in an emergency" and "[v]entilation fans shall be on a separate electrical circuit and have a control switch located immediately outside the machinery room door;" ANSI/IIAR 2-2014 Section 6.12.1, which states, "A clearly identified emergency shut-off switch with a tamper-resistant cover shall be located outside and adjacent to the designated principal machinery room door. The switch shall provide off-only control of refrigerant compressors, refrigerant pumps, and normally closed automatic refrigerant valves located in the machinery room. The function of the switch shall be clearly marked by signage near the controls"; Section 6.12.2, which states, "A clearly identified control switch for emergency ventilation with a tamper-resistant cover shall be located outside the machinery room and adjacent to the designated principal machinery room door. The switch shall provide "ON/AUTO" override capability for emergency ventilation. The function of the switch shall be clearly marked by signage near the controls;" NFPA 1 2018 Section 53.2.3.1, which states, "Refrigeration machinery rooms shall have an approved refrigerant vapor detection, monitoring and alarm system"; Section 53.2.3.3.3, which states, "For systems using ammonia, purge fans shall respond automatically to the refrigerant concentration detection

system set to activate the ventilation system at an ammonia concentration not exceeding 150 parts per million"; and Section 53.2.3.3.5, which states, "The switches [ventilation control] shall be key-operated or within a locked glass-covered or tamper-resistant enclosure at an approved location adjacent to and outside of the principal entrance to the refrigeration machinery room."

4. **Potential Finding – CAA §112(r)(1) GDC Obligations, Design and Maintain a Safe Facility, Section, 2.3.2(b), Standard Operating Procedures (NOIF 6)**

The owners and operators are responsible for ensuring that the process and equipment are operated within safe limits. To achieve this, standard operating procedures (SOPs) should be written for every aspect of the processes. These procedures should identify safe upper and lower limits for process variables and identify corrective measures and emergency situations. These procedures should be correct and accurate, clear, concise, and written at the appropriate reading level for the operator. SOPs should include the various phases of operation, including pre-startup checks, startup, normal operations, temporary operations, normal shutdown and emergency shutdown. SOPs should also address receiving, storing, transferring and shipping of extremely hazardous substances to minimize the likelihood of a release from other than chemical process areas. These procedures should clearly warn about conditions/practices likely to cause a release as identified in the PHA or HR and steps that the employee/operator must take to prevent a release if these conditions are encountered.

The Company did not have written procedures for the operation and maintenance of the refrigeration system per manufacturer or example RAGAGEP or industry standards of care, such as IIAR's *Ammonia Refrigeration Management Program,* Section 4 and IIAR Bulletin No. 110, Section 5.2.2.

5. **Potential Finding – CAA §112(r)(1) GDC Obligations, Design and Maintain a Safe Facility, Section, 2.3.2(b), Incident Investigation (NOIF 7)**

When an incident occurs that results in a release or that could have escalated into a release, the owners and operators should investigate the cause of the incident/accident. The investigation should result in recommendations designed to prevent future similar occurrences. The owners and operators should document how these recommendations were evaluated and implemented or why recommendations were not implemented. Investigation findings should be evaluated to ensure that any new information is included in periodic PHA reviews, changes in procedures, and changes in operation and maintenance programs.

Thirteen Cochran Mechanical work orders indicated services were contracted by the Company for Cochran Mechanical to provide emergency responses and leak repairs; however, the Company did not have an incident investigation program in place and did not investigate any incident to find the cause and make or implement recommendations.

6. **Potential Finding – CAA §112(r)(1) GDC Obligations, Design and Maintain a Safe**

Facility, Section, 2.3.2(b), Preventative Maintenance Programs (NOIF 8)

Maintenance requirements should have been identified in the design phase of a process. However, as facilities are operated, experience may provide a more realistic picture of maintenance requirements. The owners and operators should ensure that a preventive maintenance program is implemented that maintains the mechanical integrity of the process equipment and the safety mechanisms. This program should, at a minimum, meet guidelines from standard industry sources such as the American Society of Mechanical Engineers (ASME), National Association of Corrosion Engineers (NACE), American National Standards Institute (ANSI), American Institute of Chemical Engineers (AIChE) and the CCPS. At a minimum, the maintenance program should include schedules for replacement, repairs, or regular maintenance (cleaning, lubrication, other) to the equipment, quality requirements for spare parts, installation and repair procedures, testing, quality controls, replacement in kind controls, and maintenance enforcement procedures. Reasonably detailed maintenance records should be kept for periodic maintenance program evaluation.

a. The Cochran Mechanical, Inc. invoices indicate that most of the work performed at the Facility was for repairing faulty refrigeration equipment and responding to leaks of ammonia rather than for performing preventative maintenance of the refrigeration system.

b. Surface corrosion, pitting, and flaking were observed on piping valves and other system components throughout the equipment areas. The Company was not able to provide industry standard of care documentation for a preventative maintenance program consistent with RAGAGEP or industry standards of care, such as IIAR's Ammonia Refrigeration Management Program Section 5 and Appendix 5.1.

c. Five-Year Mechanical Integrity Audits pursuant to IIAR Bulletin 110 Section 6.4.4 and annual safety inspections pursuant to IIAR Bulletin 109 were not conducted.

d. Some pressure relief valves ("PRVs") within the Facility were not tagged, such as the two on the new compressors. Some PRVs were rusted, such as those on top of the accumulator. An invoice dated 10/11/16 indicated that several PRVs were replaced due to being out of date. The 2016 Risk Management Prevention Program Checklist indicated that safety relief valve inspections/replacements were "ongoing." The Company lacks a complete list of all the ammonia refrigeration system relief valves for tracking replacement frequency. These conditions indicate that there are some PRVs that have not been replaced, inspected, cleaned, and tested every five years.

    - Example RAGAGEP or industry standards of care include: IIAR Bulletin 109 Section 4.9.7, which states, "Pressure relief valves releasing to the environment should be replaced or inspected, cleaned, and tested every five years of service;" IIAR Bulletin 110, Section 6.5.4, which states, "Pressure relief valves shall be replaced at intervals not exceeding five years;" and Section 6.6.3, as revised June 19, 2007, provides three options for replacing or

recertifying pressure relief devices, specifically 1) "every five years from the date of installation;" 2) "based on documented in-service relief valve life for specific applications using industry accepted good practices of relief valve evaluation;" or 3) "manufacturer's recommendations on replacement frequency of pressure relief devices shall be followed."

e. Vapor barriers were broken or nonexistent on pipes throughout the Facility.

- Example RAGAGEP or industry standards of care include IIAR Bulletin No. 109, *IIAR Minimum Safety Criteria for a Safe Ammonia Refrigeration System*, Section 4.7.5, which states, "Insulated piping showing signs of vapor barrier failure should have the insulation removed and the pipe inspected."

f. Differential pressure gauge junction boxes located on the side of the Condenser were open and corroded; an unprotected and unlabeled 480-volt power supply panel did not indicate high voltage warning; and the engine room included a reciprocating compressor with an open junction box.

- Example RAGAGEP or industry standards of care include IIAR-2, 2015, which states: "Electrical equipment and wiring shall be installed in accordance with the Electrical Code."

g. The Company did not maintain buildings, structures and parts thereof in a safe and sanitary condition. Deteriorated roof beams connected to the ammonia structure were observed; the pole-mounted platform supporting three high voltage transformers, which supply power to the ammonia process, was deteriorated; and a wooden beam appeared to be connected to the support structure associated with the ammonia system Condenser platform.

- Example RAGAGEP or industry standards of care include the 2016 California Building Code, Chapter 34A, Existing Structures, Section 3401A.2 Maintenance, which states, "Buildings and structures, and parts thereof, shall be maintained in a safe and sanitary condition. Devices or safeguards which are required by this code shall be maintained in conformance with the code edition under which installed."

h. The Company did not repair gravity load-carrying components that have sustained substantial structural damage. Deteriorated roof beams connected to the ammonia structure were observed; the pole-mounted platform supporting three high voltage transformers, which supply power to the ammonia process, was deteriorated; and a wooden beam appeared to be connected to the support structure associated with the ammonia system Condenser platform.

- Example RAGAGEP or industry standards of care include the 2016 California Building Code, Chapter 34A, Existing Structures, Section 3405A, Repairs, 3405A.3 Substantial structural damage to gravity load-carrying components,

which states, "Gravity load-carrying components that have sustained substantial structural damage shall be rehabilitated to comply with the applicable provisions of this code for dead and live loads."

7. **Potential Finding – CAA §112(r)(1) GDC Obligations, Minimize the Consequences of a Release, Section, 2.3.3(a), Planning (NOIF 9)**

An owner/operator should develop an emergency response plan that specifically addresses release scenarios developed from the PHAs, HR, and historical information. The potential releases identified in the PHAs or HAs should be used in preparing the emergency response plans. Planning and preparation include identifying populations, systems and environments that may be impacted, and specific procedures for employees to follow to stop further chemical releases and/or mitigate the effects of the substances released. The plan should also identify emergency response equipment that is available for response activities and state whether the equipment is located at the facility or its location within the community.

The Company indicated to inspectors that it operates as a non-responding facility, but has not developed an emergency response or action plan to minimize the consequences of a release, beyond the 2 and ½ page Emergency Response Plan included as Appendix E to the Hazardous Materials Business Plan submitted to the Certified Unified Program Agency ("CUPA"). Appendix E does not indicate that the National Response Center, the CUPA/Local Emergency Planning Committee, and the California Office of Emergency Services/State Emergency Response Commission should be contacted in the event of a reportable release of anhydrous ammonia. Appendix E does not indicate how the supervisor will know if there is a release. Appendix E does not indicate how the supervisor will communicate specific safe evacuation instructions to personnel on site, or how the supervisor will complete an evacuation point head count.

- Example RAGAGEP or industry standards of care include IIAR's *Ammonia Refrigeration Management Program* Section 7 (2005), which states, "Refrigeration facilities should develop an up-to-date, facility-specific emergency action plan that accurately describes the facility and the potentially affected population. Such a plan should include, among other items: types of evacuation, evacuation procedures and routes, procedures for employees who remain to maintain critical operations, procedures for accounting for evacuated employees, any employee rescue and medical duties, and means for reporting emergencies. An adequate emergency response program should also identify procedures for responding to an ammonia release, including shutting the system down, starting emergency ventilation, and coordinating with all relevant off-site emergency responders."

Before filing a Determination of Violation, Compliance Order, and Notice of Right to Request a Hearing ("Complaint"), EPA is extending to you the opportunity to further advise EPA of any other information that we should consider. Relevant information may include any evidence of your reliance on compliance assistance, additional compliance tasks performed after the

investigation, or financial factors bearing on your ability to pay a civil penalty. EPA has reviewed the documents included in the Company's previous submittals. These documents do not need to be resubmitted.

Your response to this letter must be made in writing, signed by a person or persons duly authorized to represent the Company. Please send your response by e-mail and certified mail, return receipt requested, to:

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San Francisco, CA 94105
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Please provide any new information that that you believe EPA should consider, which must be received within thirty (30) days of the date of this letter. EPA anticipates filing a Complaint in this matter within sixty (60) days of receipt of this letter, unless the Company first advises EPA, with supporting information, of substantial reasons not to proceed as planned. Any penalty proposed for violation of the CAA will be calculated pursuant to EPA's June 2012 Combined Enforcement Policy for Clean Air Act Sections 112(r)(1), 112(r)(7), and 40 C.F.R. Part 68.[2] This penalty policy is subject to inflation adjustments under the applicable Civil Monetary Penalty Inflation Adjustment Rule, as well as potential changes in EPA guidance.[3] Even if you are unaware of any mitigating or exculpatory factors, we are extending to you the opportunity to commence settlement discussions concerning the above-described violations.

Please note that, pursuant to regulations located at 40 C.F.R. Part 2, Subpart B, you are entitled to assert a business confidentiality claim covering any part of any submitted information as defined in 40 C.F.R. § 2.201(c). Asserting a business confidentiality claim does not relieve you from the obligation to respond fully to this letter. Failure to assert such a claim makes the submitted information subject to public disclosure upon request and without further notice to you, pursuant to the Freedom of Information Act, 5 U.S.C. § 552. Information subject to a business confidentiality claim may be available to the public only to the extent set forth in the above-cited regulation. EPA has authority to use the information requested herein in an administrative, civil, or criminal action. In addition, EPA has not waived any rights to take enforcement action for past or future violations.

[2] https://www.epa.gov/sites/production/files/documents/112rcep062012.pdf
[3] https://www.epa.gov/sites/production/files/2020-01/documents/2020penaltyinflationruleadjustments.pdf

EPA encourages you to explore the possibility of settlement. If you are interested in commencing settlement negotiations or have any questions regarding this notice, please contact Nicolas Cardella, Attorney-Advisor, Office of Regional Counsel, at (415) 972-3541 or Cardella.Nicolas@epa.gov, to schedule a conference call or teleconference.

Sincerely,

KAORU MORIMOTO

Digitally signed by KAORU MORIMOTO
Date: 2020.09.24 08:58:23 -07'00'

Kaoru Morimoto, Manager
Hazardous Waste & Chemical Section
Enforcement and Compliance Assurance Division

Cc: Shane Gardner, City of Bakersfield CUPA, sgardner@bakersfieldfire.us